IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~Medium~~ A medium access device ~~(10)~~ capable of writing information in a logical storage space ~~(LSS)~~ of a storage medium ~~(2)~~ which has a physical storage space ~~(3)~~ comprising two or more layers ~~(L0; L1)~~ of physical storage locations, each storage location ~~(4)~~ having a physical address ~~(PA)~~, the logical storage space ~~(LSS)~~ comprising storage locations within a first one ~~(L0)~~ of said layers and within a subsequent one ~~(L1)~~ of said layers, the storage locations in said logical storage space ~~(LSS)~~ having contiguously numbered logical addresses ~~(LA)~~;

[[-]]   the medium access device ~~(10)~~ having an address limit memory ~~(12)~~ containing at least a value for a parameter ~~LAmax~~ indicating the maximum value of the logical addresses ~~(LA)~~ of the storage locations ~~(4)~~ in the said first storage layer ~~(L0)~~;

[[-]]   the medium access device ~~(10)~~ comprising means for

changing the <u>maximum</u> value in said address limit memory ~~(12)~~.

2. (Currently Amended) ~~Medium~~ <u>The medium</u> access device ~~(10)~~
according to claim 1, adapted to compare the logical address ~~(LA)~~
of the current block with the <u>maximum</u> value ~~of LAmax in its~~ <u>stored</u>
<u>in the</u> address limit memory ~~(12) [step 152]~~ while writing in said
first storage layer ~~(L0)~~ and, if the result of this comparison
shows that the ~~upper limit LAmax~~ <u>maximum value</u> has been reached for
said first storage layer ~~(L0)~~, to make a transition ~~[step 153]~~ to
the first available block in the next storage layer ~~(L1)~~.

3. (Currently Amended) ~~Medium~~ <u>The medium</u> access device ~~(10)~~
according to claim 1, adapted to store ~~a certain value (LAmax) in~~
~~its~~ <u>the maximum value in the</u> address limit memory ~~(12)~~ and to write
the ~~same~~ <u>maximum</u> value to a predetermined storage location of said
storage medium ~~(2)~~.

4. (Currently Amended) ~~Writeable~~ <u>A writeable</u> storage medium
~~(2)~~ having a physical storage space ~~(3)~~ comprising two or more
layers ~~(L0, L1)~~ of physical storage locations, each storage

location ~~(4)~~ having a physical address ~~(PA)~~, the physical storage

space ~~(3)~~ comprising a logical storage space ~~(LSS)~~ which contains

storage locations within a first one ~~(L0)~~ of said layers and within

a subsequent one ~~(L1)~~ of said layers, the storage locations in said

logical storage space ~~(LSS)~~ having contiguously numbered logical

addresses ~~(LA)~~;

[[-]]   the storage medium ~~(2)~~ having at least one

predetermined storage location for containing a value for a

parameter ~~LAmax~~ indicating the maximum value of the logical

addresses ~~(LA)~~ of the storage locations ~~(4)~~ in the said first

storage layer ~~(L0)~~.

5. (Currently Amended) ~~Medium~~ A medium access device ~~(10)~~,

capable of writing information in the logical storage space ~~(LSS)~~

of a storage medium ~~(2)~~, having two or more layers ~~(L0; L1)~~ of

physical storage locations, each storage location ~~(4)~~ having a

physical address ~~(PA)~~, the physical storage space ~~(3)~~ comprising a

logical storage space ~~(LSS)~~ which contains storage locations within

a first one ~~(L0)~~ of said layers and within a subsequent one ~~(L1)~~ of

said layers, the storage locations in said logical storage space

(LSS) having contiguously numbered logical addresses (LA); the

storage medium (2) having at least one predetermined storage

location for containing a value for a parameter LAmax indicating

the maximum value of the logical addresses (LA) of the storage

locations (4) in the said first storage layer (L0), the medium

access device being adapted to read the maximum value for said

parameter LAmax from said predetermined storage location, and to

store this the maximum value in its an address limit memory (12) of

the medium access device, and to change the maximum value so that a

transition from said first storage layer to a next storage layer

corresponds to a video cell boundary.

6.(Currently Amended) Host A host device (20) capable of

cooperating with a the medium access device (10) according to claim

1, the host device (20) being adapted to send data to said medium

access device (10), the data containing information to be written

on said medium (2) and/or containing instructions for said medium

access device (10);

[[-]]   the host device (20) being adapted to send a limit

fix command to said medium access device (10) for instructing said

medium access device ~~(10)~~ to store a host-determined value in ~~its~~
the address limit memory ~~(12)~~.

7.(Currently Amended) ~~Host~~ The host device according to claim
6, adapted to send a video signal to said medium access device
~~(10)~~, the host device ~~(20)~~ being capable of evaluating the video
signal to be written so as to determine where cell boundaries ~~(34)~~
in this video signal are to be expected ~~[step 221]~~, to calculate a
suitable value for said parameter ~~LAmax~~ such that a block ~~(4)~~ for
which it holds that ~~LA = LAmax~~ a logical address is equal to the
maximum value corresponds to a cell boundary, and to send a limit
fix command to said medium access device ~~(10)~~ for instructing said
medium access device ~~(10)~~ to store said calculated value into ~~its~~
the address limit memory ~~(12)~~.

8.(Currently Amended) ~~Medium~~ The medium access device ~~(10)~~
according to claim 1, capable of cooperating with a host device,
the medium access device being adapted to receive a limit fix
command from said host device and, in response, to derive ~~a~~ the
maximum value ~~for LAmax~~ from said limit fix command and to store

this the derived maximum value in its the address limit memory
(12).

9.(Currently Amended) Host device according to claim 6, A
host device capable of cooperating with a medium access device
capable of writing information in a logical storage space of a
storage medium which has a physical storage space comprising two or
more layers of physical storage locations, each storage location
having a physical address, the logical storage space comprising
storage locations within a first one of said layers and within a
subsequent one of said layers, the storage locations in said
logical storage space having contiguously numbered logical
addresses;

the medium access device having an address limit memory
containing at least a value for a parameter indicating the maximum
value of the logical addresses of the storage locations in the said
first storage layer;

the medium access device comprising means for changing the
value in said address limit memory;

the host device being adapted to send data to said medium

access device, the data containing information to be written on

said medium and/or containing instructions for said medium access

device;

the host device being adapted to send a limit fix command to

said medium access device for instructing said medium access device

to store a host-determined value in the address limit memory;

wherein the host device is further adapted to send a Disc Read

Command to said medium access device ~~(10)~~ and to receive a Disc

Read Response from said medium access device ~~(10)~~, indicating

whether or not said parameter ~~LAmax is changeable, for example~~ is

changeable by indicating that said parameter ~~LAmax~~ has already been

set to a certain host-determined value;

[[-]]   the host device ~~(20)~~ being further adapted to avoid

sending the limit fix command in response to receiving a Disc Read

Response from said medium access device ~~(10)~~ indicating that said

parameter ~~LAmax~~ cannot be changed.

10. (Currently Amended) ~~Medium~~ A medium access device ~~(10)~~

~~according to claim 1,~~ capable of cooperating with ~~a~~ the host device

according to claim 9, the medium access device being adapted to

receive a Disc Read Command from said host device and, in response,
to read the value for said parameter ~~LAmax~~ from said predetermined
storage location, and to send to the host device a Disc Read
Response containing information from which said parameter ~~LAmax~~ can
be derived.

11.(Currently Amended) ~~Data~~ A data storage system ~~(1)~~
comprising:

[[-]]   a writeable storage medium ~~(2)~~ having a physical
storage space ~~(3)~~ comprising two or more layers ~~(L0; L1)~~ of
physical storage locations, each storage location ~~(4)~~ having a
physical address ~~(PA)~~, the physical storage space ~~(3)~~ comprising a
logical storage space ~~(LSS)~~ which contains storage locations within
a first one ~~(L0)~~ of said layers and within a subsequent one ~~(L1)~~ of
said layers, the storage locations in said logical storage space
~~(LSS)~~ having contiguously numbered logical addresses ~~(LA)~~;

[[-]]   a medium access device ~~(10)~~ capable of writing
information in a logical storage space ~~(LSS)~~ of a the writeable
storage medium ~~(2)~~ which has a physical storage space ~~(3)~~
comprising two or more layers ~~(L0; L1)~~ of physical storage

locations, each storage location (4) having a physical address

(PA), the logical storage space (LSS) comprising storage locations

within a first one (L0) of said layers and within a subsequent one

(L1) of said layers, the storage locations in said logical storage

space (LSS) having contiguously numbered logical addresses (LA);

the medium access device (10) having an address limit memory (12)

containing at least a value for a parameter LAmax indicating the a

maximum value of the logical addresses (LA) of the storage

locations (4) in the said first storage layer (L0); the medium

access device (10) comprising means for changing the value in said

address limit memory (12); and

    [[-]]   a host device (20) capable of cooperating with said

medium access device (10).

    12.(Currently Amended) Data The data storage system according

to claim 11, comprising a storage medium (2) having a physical

storage space (3) comprising two or more layers (L0; L1) of

physical storage locations, each storage location (4) having a

physical address (PA), the physical storage space (3) comprising a

logical storage space (LSS) which contains storage locations within

a first one ~~(L0)~~ of said layers and within a subsequent one ~~(L1)~~ of said layers, the storage locations in said logical storage space ~~(LSS)~~ having contiguously numbered logical addresses ~~(LA)~~; the storage medium ~~(2)~~ having at least one predetermined storage location for containing a value for a parameter ~~LAmax~~ indicating ~~the~~ a maximum value of the logical addresses ~~(LA)~~ of the storage locations ~~(4)~~ in the said first storage layer ~~(L0)~~ and a medium access device ~~(10)~~ capable of writing information in the logical storage space ~~(LSS)~~ of the storage medium ~~(2)~~ the device being adapted to read the value for said parameter ~~LAmax~~ from said predetermined storage location and to store this value in its address limit memory ~~(12)~~.

13. (Currently Amended) ~~Data~~ The data storage system according to claim 11, wherein said storage medium is an optical disc, ~~preferably a DVD, more preferably a DVD+R,~~ and wherein said medium access device is a disc drive.

14. (Currently Amended) ~~Data~~ The data storage system according to claim 11, comprising a host device ~~(20)~~ the host device ~~(20)~~

being adapted to send data to said medium access device (10), the

data containing information to be written on said medium (2) and/or

containing instructions for said medium access device (10); the

host device (20) being adapted to send a limit fix command to said

medium access device (10) for instructing said medium access device

(10) to store a host-determined value in its address limit memory

(12) and a medium access device (10) adapted to receive a limit fix

command from said host device and, in response, to derive a the

maximum value for LAmax from said limit fix command and to store

this the derived maximum value in its address limit memory (12).

    15. (Currently Amended) Data storage system according to claim

14, A data storage system comprising:

    a writeable storage medium having a physical storage space

comprising two or more layers of physical storage locations, each

storage location having a physical address, the physical storage

space comprising a logical storage space which contains storage

locations within a first one of said layers and within a subsequent

one of said layers, the storage locations in said logical storage

space having contiguously numbered logical addresses;

a medium access device capable of writing information in a logical storage space of the writeable storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the medium access device having an address limit memory containing at least a value for a parameter indicating a maximum value of the logical addresses of the storage locations in the said first storage layer; the medium access device comprising means for changing the value in said address limit memory; and

a host device capable of cooperating with said medium access device and being adapted to send data to said medium access device, the data containing information to be written on said medium and/or containing instructions for said medium access device;

the host device being further adapted to send a limit fix command to said medium access device for instructing said medium access device to store a host-determined value in its address limit

memory and a medium access device adapted to receive a limit fix

command from said host device and, in response, to derive the

maximum value from said limit fix command and to store the derived

maximum value in its address limit memory;

wherein said limit fix command ~~(LFC)~~ is sent as a modified

RESERVE TRACK ~~(RT)~~ command.

16. (Currently Amended) ~~Data~~ The data storage system according

to claim 15, wherein the value of bit 0 of byte 1 of the RESERVE

TRACK ~~(RT)~~ command indicates that this command is to be interpreted

as a limit fix command ~~(LFC)~~, and wherein the bytes 5 to 8 of the

RESERVE TRACK ~~(RT)~~ command contain ~~a~~ the maximum value ~~indicating~~

~~LAmax~~.

17. (Currently Amended) ~~Data storage system according to claim~~

~~14,~~ A data storage system comprising:

a writeable storage medium having a physical storage space

comprising two or more layers of physical storage locations, each

storage location having a physical address, the physical storage

space comprising a logical storage space which contains storage

locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses;

a medium access device capable of writing information in a logical storage space of the writeable storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the medium access device having an address limit memory containing at least a value for a parameter indicating a maximum value of the logical addresses of the storage locations in the said first storage layer; the medium access device comprising means for changing the value in said address limit memory; and

a host device capable of cooperating with said medium access device and being adapted to send data to said medium access device, the data containing information to be written on said medium and/or containing instructions for said medium access device;

the host device being further adapted to send a limit fix command to said medium access device for instructing said medium access device to store a host-determined value in its address limit memory and a medium access device adapted to receive a limit fix command from said host device and, in response, to derive the maximum value from said limit fix command and to store the derived maximum value in its address limit memory;

wherein said limit fix command (LFC) is sent as a modified WRITE PARAMETERS PAGE (WPP) command.

18. (Currently Amended) Data The data storage system according to claim 17, wherein the value of bit 6 of byte 0 of the WRITE PARAMETERS PAGE (WPP) command indicates that this command is to be interpreted as a limit fix command (LFC), and wherein the bytes 32 to 47 of the WRITE PARAMETERS PAGE (WPP) command contain a the maximum value indicating LAmax.

19. (Currently Amended) Data storage system according to claim 14, A data storage system comprising:

a writeable storage medium having a physical storage space

comprising two or more layers of physical storage locations, each

storage location having a physical address, the physical storage

space comprising a logical storage space which contains storage

locations within a first one of said layers and within a subsequent

one of said layers, the storage locations in said logical storage

space having contiguously numbered logical addresses;

a medium access device capable of writing information in a

logical storage space of the writeable storage medium which has a

physical storage space comprising two or more layers of physical

storage locations, each storage location having a physical address,

the logical storage space comprising storage locations within a

first one of said layers and within a subsequent one of said

layers, the storage locations in said logical storage space having

contiguously numbered logical addresses; the medium access device

having an address limit memory containing at least a value for a

parameter indicating a maximum value of the logical addresses of

the storage locations in the said first storage layer; the medium

access device comprising means for changing the value in said

address limit memory; and

a host device capable of cooperating with said medium access

device and being adapted to send data to said medium access device,

the data containing information to be written on said medium and/or

containing instructions for said medium access device;

the host device being further adapted to send a limit fix

command to said medium access device for instructing said medium

access device to store a host-determined value in its address limit

memory and a medium access device adapted to receive a limit fix

command from said host device and, in response, to derive the

maximum value from said limit fix command and to store the derived

maximum value in its address limit memory;

wherein said limit fix command ~~(LFC)~~ is sent as a modified

SEND DVD STRUCTURE ~~(SDS)~~ command.

20.(Currently Amended) ~~Data~~ The data storage system according

to claim 19, wherein value 20h for byte 7 indicates that the ~~SDS~~

SEND DVD STRUCTURE command contains 17 bytes, and that bytes 14-16

contain ~~a~~ the maximum value ~~indicating LAmax~~.

21.(Currently Amended) ~~Data storage system according to claim~~

~~11, comprising a host device (20)~~ A data storage system comprising:

a writeable storage medium having a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the physical storage space comprising a logical storage space which contains storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses;

a medium access device capable of writing information in a logical storage space of the writeable storage medium which has a physical storage space comprising two or more layers of physical storage locations, each storage location having a physical address, the logical storage space comprising storage locations within a first one of said layers and within a subsequent one of said layers, the storage locations in said logical storage space having contiguously numbered logical addresses; the medium access device having an address limit memory containing at least a value for a parameter indicating a maximum value of the logical addresses of the storage locations in the said first storage layer; the medium access device comprising means for changing the value in said address limit memory; and

a host device capable of cooperating with said medium access device and being adapted to send a Disc Read Command to said medium access device ~~(10)~~ and to receive a Disc Read Response from said medium access device ~~(10)~~, indicating whether or not said parameter ~~LAmax is changeable, for example~~ is changeable by indicating that said parameter ~~LAmax~~ has already been set to a certain host-determined value;

the host device ~~(20)~~ being further adapted to avoid sending the limit fix command in response to receiving a Disc Read Response from said medium access device ~~(10)~~ indicating that said parameter ~~LAmax~~ cannot be changed and a medium access device ~~(10)~~, the access device being ~~designed~~ adapted to receive a Disc Read Command from said host device and, in response, to read the value for said parameter ~~LAmax~~ from said predetermined storage location, and to send to the host device a Disc Read Response containing information from which said parameter ~~LAmax~~ can be derived.

22. (Currently Amended) ~~Data~~ The data storage system according to claim 21, wherein said Disc Read Command is sent as a modified READ DVD STRUCTURE ~~(RDS)~~ command.

23.(Currently Amended) ~~Data~~The data storage system according
to claim 22, wherein value 20h for byte 7 indicates that the ~~RDS~~
modified READ DVD STRUCTURE command is to be taken as a Disc Read
Command.

24.(Currently Amended) ~~Data~~The data storage system according
to claim 21, wherein said Disc Read Response is sent as modified
Read DVD Structure Data.

25.(Currently Amended) ~~Data~~The data storage system according
to claim 24, wherein bytes 2 4 of ~~the~~ a "DVD Lead-in Structure"
field are used to convey information indicating whether or not said
parameter ~~LAmax~~ is changeable.

26.(New) A system comprising:

a disc drive configured to read from a storage medium a
maximum value of logical addresses of the storage medium, and to
store the maximum value in a memory of the disc drive, the storage
medium having a first storage layer and a second storage layer;

a host device configured to provide data organized in cells

for writing the data on the storage medium and to determine cell

boundaries of the cells, the host device being further configured

to determine a desired maximum value of the logical addresses so

that a transition from the first storage layer to the second

storage layer corresponds to a video cell boundary, and to provide

the desired maximum value to the disc drive for changing the

maximum value stored in a memory to the desired maximum value.

27.(New)   The system of claim 26, wherein the disc drive

further configured to store the desired maximum value on the

storage medium.

28.(New)   The system of claim 26, wherein the host device is

further configured to determine a desired address value for a last

logical address in the first storage layer so that a transition

from the first storage layer to the second storage layer

corresponds to a video cell boundary, and wherein the disc drive is

further configured to determine the desired maximum value from the

desired address value.